Tennessee Deaths 12 (1) (4)

April 2006

The Tennessee Department of Health

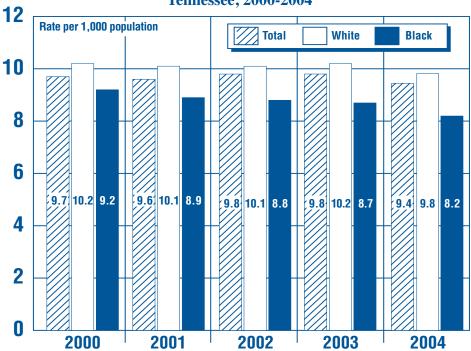
Tennessee's death data provides information on 2004 final mortality data for state residents. Resident data includes events which occurred to residents of the state irrespective of where the events took place. Certificates filed with the Office of Vital Records supplied the data for this report.

Over the past century, improvements in scientific technology and research have created a better quality of life. Tennesseans now have the potential for increased longevity of life and reductions in illnesses.

The 2004 total death rate of 9.4 was the lowest for the 5-year period of 2000-2004. The mortality rate for whites decreased 3.9 percent from 10.2 in 2000 to 9.8 in 2004. The rate for blacks decreased 10.9 percent from 9.2 per 1,000 population to 8.2 over the 5-year period.

Age-specific death rates for 2004 show the total rates increasing over three times for the age group 45-64 to the group 65-74. Rates for blacks were higher than those for whites, except for the population group 5-14 when they were the same, and ages 85 years and older where the white rate was higher than both the total and black rate. The black infant death rate of 17.4 was 2.7 times higher than the white rate of 6.4 per 1,000 births.

Death Rates by Race, Resident Data Tennessee, 2000-2004



Population estimates used to calculate rates were revised August 2003. (See Note on last page)

Number of Deaths by Age and Race, with Rates per 1,000 Population, Resident Data, Tennessee, 2004

| Age Groups | Total | Rate | White | Rate | Black | Rate |
|---------------|--------|-------|--------|-------|-------|-------|
| Total | 55,645 | 9.4 | 47,270 | 9.8 | 8,150 | 8.2 |
| Under 1* | 686 | 8.6 | 396 | 6.4 | 274 | 17.4 |
| 1-4 years | 105 | 0.3 | 77 | 0.3 | 26 | 0.4 |
| 5-14 years | 142 | 0.2 | 103 | 0.2 | 39 | 0.2 |
| 15-24 years | 890 | 1.1 | 670 | 1.1 | 208 | 1.3 |
| 25-44 years | 3,432 | 2.0 | 2,591 | 1.9 | 811 | 2.8 |
| 45-64 years | 11,825 | 8.1 | 9,541 | 7.7 | 2,222 | 11.0 |
| 65-74 years | 10,014 | 25.3 | 8,547 | 24.4 | 1,430 | 33.7 |
| 75-84 years | 15,111 | 61.0 | 13,371 | 60.2 | 1,696 | 69.9 |
| 85+ years | 13,433 | 149.4 | 11,969 | 150.4 | 1,442 | 143.6 |

*Rate for deaths under age one are per 1,000 live births. All other age groups are per 1,000 population. Total includes deaths of other races and deaths with race not stated.

Tennessee's ten leading causes of death accounted for 43,834 or 78.8 percent of the total 55,645 deaths in 2004. Diseases of heart and malignant neoplasms combined, accounted for 27,539 or 49.5 percent of the total deaths. The codes used for cause of death were from the Tenth Revision International Classification of Diseases.

Notes: Age-adjustment is a technique that removes the effects that differences in age distributions have on mortality rates for two or more groups being compared. For 2004, the standard population used in the direct method calculations was revised to the 2000 United States estimated population, as recommended by the National Center for Heath Statistics. These revised age-adjusted figures may result in rates that differ from previous years.

Leading Causes of Death (ICD-10 Codes) with Rates and Age-Adjusted Rates per 100,000 Population Resident Data, Tennessee, 2004

| Cause | Number | Rate | Age-Adjusted Rate |
|---|--------|-------|----------------------|
| Total Deaths | 55,645 | 943.6 | 940.7 |
| 1. Diseases of heart (100-109, 111, 113, 120-151) | 14,981 | 254.0 | 253.9 |
| 2. Malignant neoplasms (C00-C97) | 12,558 | 212.9 | 208.5 |
| 3. Cerebrovascular diseases (160-169) | 3,669 | 62.2 | 63.1 |
| 4. Accidents (V01-X59, Y85-Y86) | 3,120 | 52.9 | 52.8 |
| Motor vehicle accidents (V02-V04, V09.0, | 1,372 | 23.3 | 23.1 |
| V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, | | | |
| V20-V79, V80.3-V80.5, V81.0-V81.1, | | | |
| V82.0-V82.1, V83-V86, V87.0-V87.8, | | | |
| V88.0-V88.8, V89.0, V89.2) | | | |
| 5. Chronic lower respiratory diseases (J40-J47) | 2,982 | 50.6 | 50.6 |
| 6. Diabetes mellitus (E10-E14) | 1,880 | 31.9 | 31.5 |
| 7. Alzheimer's disease (G30) | 1,612 | 27.3 | 28.1 |
| 8. Influenza and pneumonia (J10-J18) | 1,565 | 26.5 | 27.0 |
| 9. Intentional self-harm (suicide) (X60-X84, Y87.0) | 791 | 13.4 | 13.2 |
| 10. Nephritis, nephrotic syndrome and nephrosis | | | |
| (N00-N07, N17-N19, N25-N27) | 676 | 11.5 | 11.5 |

Number of Infant and Neonatal Deaths by Race with Rates per 1,000 Live Births Resident Data, Tennessee, 2004

| Infant Deaths | Number | Rate | Neonatal Deaths | Number | Rate |
|---------------|--------|------|-----------------|--------|------|
| Total | 686 | 8.6 | Total | 430 | 5.4 |
| White | 396 | 6.4 | White | 241 | 3.9 |
| Black | 274 | 17.4 | Black | 181 | 11.5 |

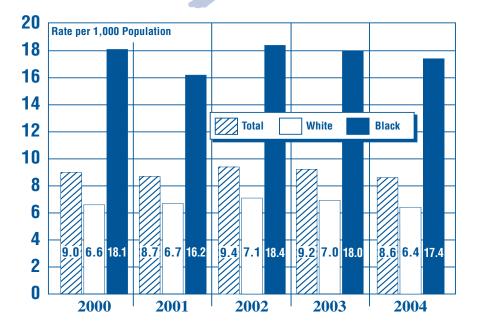
Infant Death - A death of a live-born infant under one year of age. Neonatal Death - A death of a live-born infant under 28 days of age.

Infant Death Rates by Race, Resident Data Tennessee, 2000-2004

In 2004, Tennessee's infant death rates by race declined from those of the previous year. While the rates fluctuated for the 5-year period 2000-2004, the black rate remained highest for each year. The 2004 black infant death rate of 17.4 decreased 3.9 percent from the 2000 rate of 18.1 per 1,000 live births.

Early prenatal care and educating mothers on the importance of proper nutrition and good health habits, and informative programs like the "Back to Sleep" campaign, have been important factors in the ongoing effort to decrease infant deaths. While these deaths overall have declined since the early 1900's, infant death reduction will continue to be a high priority for health professionals.

Tennessee had 686 infant deaths in 2004. The total infant mortality rate per 1,000 live births was 8.6. The number of white infant deaths was 396 with a mortality rate of 6.4. The number of black infant deaths was 274, and the rate was 17.4 per 1,000 live births. The total number of neonatal deaths was 430 with a rate of 5.4. There were 241 white and 181 black neonatal deaths with corresponding rates of 3.9 and 11.5 per 1,000 live births.



TENNESSEE DEATHS 2004

Tennessee's violent death data primarily focuses on assault (homicide) and intentional self-harm (suicide) deaths. Also provided is information on firearm deaths, which includes accidental deaths as well as assault and intentional self-harm deaths due to firearm use. In addition to the 2004 violent deaths, there were 2 deaths from legal intervention.

- During 2004, there were 415 assault deaths among residents of Tennessee. The corresponding death rate was 7.0 per 100,000 population.
- In 2004, 198 or 47.7 percent of the total assault deaths occurred among the black population.
- Of the total 2004 assault deaths,
 78.3 percent were males while
 41.0 percent of the total were black males.
- The number of intentional self-harm deaths for 2004 was 791 with a rate of 13.4 per 100,000 population.
- The white population accounted for 731 or 92.4 percent of the total 2004 intentional self-harm deaths.
- Of the total 2004 intentional self-harm deaths, 79.1 percent were males while 72.9 percent of the total were white males.
- In 2004, intentional self-harm was the ninth leading cause of death in Tennessee.

The 2004 assault death rate for blacks was 19.9 per 100,000 population. This rate was 4.5 times the rate of 4.4 for

whites. The 2004 intentional self-harm rate for whites was 15.2. This rate was 2.8 times the rate of 5.5 for blacks.

Number of Assault and Intentional Self-Harm Deaths by Race and Gender, with Rates per 100,000 Population Resident Data, Tennessee, 2004

| | Assaı | ılt | Intentional Self-harm | | |
|--------------|--------------|------|-----------------------|------|--|
| | Number | Rate | Number | Rate | |
| Total | 415 | 7.0 | 791 | 13.4 | |
| White | 213 | 4.4 | <i>7</i> 31 | 15.2 | |
| White Male | 152 | 6.4 | 577 | 24.4 | |
| White Female | 61 | 2.5 | 154 | 6.3 | |
| Black | 198 | 19.9 | 55 | 5.5 | |
| Black Male | 1 <i>7</i> 0 | 36.3 | 45 | 9.6 | |
| Black Female | 28 | 5.3 | 10 | 1.9 | |
| Other Races | 4 | 4.0 | 4 | 4.0 | |
| Other Male | 3 | 6.2 | 4 | 8.2 | |
| Other Female | 1 | 2.0 | - | - | |

In 2004, there were 19 assault deaths among children under 15 years of age. The highest rate for assault deaths occurred to persons 20-24 years, while the highest rate for intentional self-harm was for persons 45-54 years of age.

Number of Assault and Intentional Self-Harm Deaths by Age with Rates per 100,000 Population, Resident Data, Tennessee, 2004

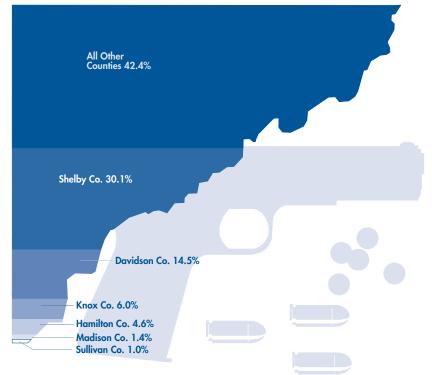
| Age | Assaı | ılt t | Intentional Self-harm | | |
|-------------|--------|-------|-----------------------|------|--|
| Groups | Number | Rate | Number | Rate | |
| Total | 415 | 7.0 | <i>7</i> 91 | 13.4 | |
| Under 1* | 8 | 0.1 | - | - | |
| 1-9 years | 9 | 1.3 | - | - | |
| 10-14 years | 2 | 0.5 | 3 | 0.7 | |
| 15-19 years | 38 | 9.3 | 42 | 10.3 | |
| 20-24 years | 65 | 16.2 | 57 | 14.2 | |
| 25-29 years | 61 | 15.3 | 70 | 17.6 | |
| 30-34 years | 53 | 12.8 | 62 | 15.0 | |
| 35-44 years | 74 | 8.4 | 160 | 18.2 | |
| 45-54 years | 52 | 6.1 | 170 | 20.1 | |
| 55-64 years | 27 | 4.4 | 111 | 17.9 | |
| 65-74 years | 15 | 3.8 | 53 | 13.4 | |
| 75-84 years | 8 | 3.2 | 48 | 19.4 | |
| 85+ years | 3 | 3.3 | 15 | 16.7 | |

^{*}Rate for deaths under one are per 1,000 births. All other age groups are per 100,000 population.

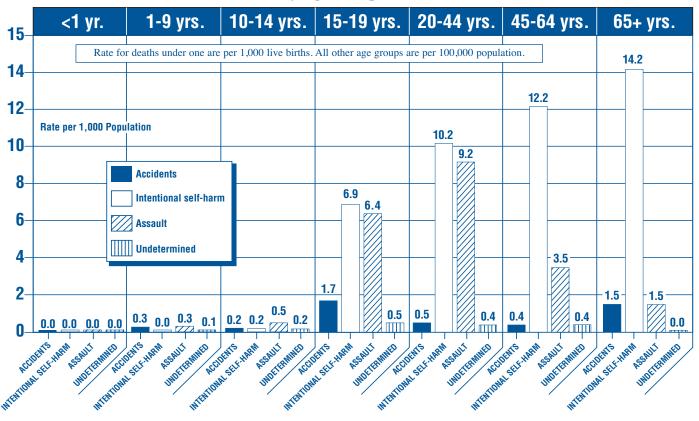
In 2004, Tennessee's assault mortality by county of residence reveals the highest numbers for residents of Shelby and Davidson Counties. These two counties accounted for 44.6 percent of the state's total number of assault deaths, with almost one-third of the total assault deaths occurring in Shelby County.

In 2004, 5 children under the age of 10 years died from firearm injuries. Of these 5 deaths, 2 were accidental, 2 were assault deaths, and 1 was undetermined. While accidental death is the leading cause of death for young children, violence toward children and youth is of increasing concern. For children ages 10-14, there were 5 firearm deaths. Of these deaths, 1 was accidental, 1 was intentional self-harm, 2 were assault deaths, and 1 was undetermined. For the age group 15-19, intentional self-harm was the leading cause of firearm deaths. The intentional self-harm rate for firearm injury was highest for ages 65 years and older, while the assault rate was highest for the age group 20-44.

Tennessee's Assault Deaths by Metropolitan and Rural Counties, Resident Data, 2004



Firearm Death Rates, by Age Group, Resident Data, Tennessee, 2004



Deaths attributed to firearm injury are classified according to ICD-10 codes as follows: accident codes W32-W34; intentional self-harm codes X72-X74; assault codes X93-X95, and undetermined whether accidentally or purposely inflicted, codes Y22-Y24.

TENNESSEE DEATHS 2004

Tennessee had 669 firearm deaths for white residents and 194 for black residents in 2004. The firearm death rate for the white population was 13.9 per 100,000 population. The rate for blacks of 19.5 was 1.4 times greater than the white rate. The intentional self-harm firearm mortality rate for whites was 3.2 times greater than the rate for blacks, while the assault firearm death rate for blacks was 5.6 times greater than the white rate. The accidental firearm death rate for whites was 1.4 times higher than the black rate. The black rate (0.6) for undetermined cause was 3 times the rate (0.2) for whites.

Number of Firearm Deaths by Race and Gender, with Rates per 100,000 Population, Resident Data Tennessee, 2004

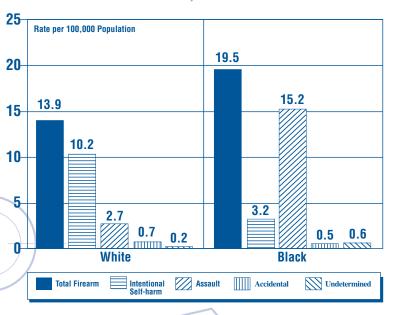
| | Number | Rate |
|--------------|--------|------|
| Total | 865 | 14.7 |
| White | 669 | 13.9 |
| White Male | 545 | 23.1 |
| White Female | 124 | 5.1 |
| Black | 194 | 19.5 |
| Black Male | 177 | 37.8 |
| Black Female | 17 | 3.2 |
| Other Races | 2 | 2.0 |
| Other Male | 2 | 2.0 |
| Other Female | - | - |

For 2004, firearm death rates by gender show that black males had the highest rate (37.8) per 100,000 population. The lowest firearm mortality rate of 2.0 was for other races.

Violent deaths have become an important health issue as it appears that violent behavior has grown to be the course of action for conflict, emotional distress, and criminal activity; but health programs alone are not sufficient to deal with this complicated problem. Implementing prevention programs involves the cooperative efforts of public health, mental health, criminal justice, social services, and professional education. Reducing these preventable deaths is imperative in the goal toward increased longevity of life.

More detailed county level mortality data may be obtained by contacting the Tennessee Department of Health, Division of Health Statistics or at our Web site.

Firearm Death Rates, by Race Resident Data, Tennessee 2004



Tennessee's total death rates for diseases of heart and malignant neoplasms (cancer) decreased from 2000 to 2004. For the 5-year period, the mortality rate for diseases of heart decreased 10.4 percent, and the cancer rate decreased 1.6 percent. While heart disease continues to be the leading cause of death for the total population, the cancer death

rate (191.0) for the population under 85 years of age exceeded that of heart disease (178.7) for the same age cohort in 2004. This relationship is similar to comparative data at the national level. Smoking, obesity, poor diet, and lack of exercise are all contributing factors to both heart disease and cancer deaths.

Number Deaths for Diseases of Heart and Malignant Neoplasms By Age Group, With Rates Per 100,000 Population, Resident Data Tennessee, 2000-2004

| | Total | | Under 8 | Under 85 Years | | 85 Years and Older | |
|---------------------|-----------------|-------|---------|----------------|--------|--------------------|--|
| Year | Number | Rate | Number | Rate | Number | Rate | |
| Diseases of | of Heart | | | | | | |
| 2000 | 16,128 | 283.5 | 11,230 | 200.3 | 4,897 | 6,011.2 | |
| 2001 | 1 <i>5,</i> 679 | 273.3 | 10,800 | 191.1 | 4,879 | 5,845.7 | |
| 2002 | 16,205 | 280.0 | 11,202 | 196.5 | 5,002 | 5,847.1 | |
| 2003 | 15,891 | 272.1 | 10,925 | 189.9 | 4,966 | 5,662.8 | |
| 2004 | 14,981 | 254.0 | 10,378 | 178.7 | 4,603 | 5,119.3 | |
| Malignant Neoplasms | | | | | | | |
| 2000 | 12,309 | 216.4 | 10,839 | 193.3 | 1,470 | 1,804.5 | |
| 2001 | 12,228 | 213.2 | 10,742 | 190.0 | 1,486 | 1,780.4 | |
| 2002 | 12,506 | 216.1 | 10,968 | 192.4 | 1,538 | 1,797.9 | |
| 2003 | 12,595 | 215.7 | 11,007 | 191.3 | 1,588 | 1,810.8 | |
| 2004 | 12,558 | 212.9 | 11,092 | 191.0 | 1,465 | 1,629.3 | |

TENNESSEE DEATHS 2004

NOTE: The population estimates for Tennessee used to calculate the rates in this report were based on figures prepared from the 2000 census on August, 2003 by the Division of Health Statistics.

These revised population figures may result in rates that differ from those previously published.

2004 Total Population 5,897,306 2004 White Population 4,804,800 2004 Black Population 993,538



Tennessee Department of Health. Authorization No. 343622, 425 copies. This public document was promulgated at a cost of \$1.41 a copy. (04/06)

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Department of Health Web site by
selecting <u>Statistics and Data</u> at:
tennessee.gov/health

Report of Tennessee Deaths 2004 was published by the Tennessee Department of Health, Division of Health Statistics Cordell Hull Building, Nashville, Tennessee, 37247-5262

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